

-5-

S.N. 09/750,653

REMARKS

After entry of this Communication, claims 1-7 and 9-20 are pending in this application. Claims 1, 3, 10-11, 13-14 and 17 have been amended to more particularly point out and distinctly claim the subject matter that the Applicant regards as the invention. Claim 8 has been cancelled and the subject matter incorporated into claim 1. It is submitted that the amendments to the claims do not raise further issues requiring further search or consideration by the Examiner, nor do the amendments add new matter to the application. It is therefore submitted that this Amendment should be entered. Alternatively, this Amendment should be entered because it places the application in better form for appeal. Reconsideration of the application as amended is requested.

In the Office Action dated October 25, 2002, the Examiner states that the Oath or Declaration is defective. In response to the previous Office Action, dated May 14, 2002, the Applicant submitted a new Declaration on August 14, 2002, listing the city and region of France in which the Applicant resides. On November 21, 2002, Applicant's attorney, Raymond C. Meiers, Registration No. 51,081, spoke with Examiner Luu. Examiner Luu indicated that he did not receive the new Declaration, but if the new Declaration listed the city in which the Applicant resides it would correct the defect in the original Declaration. The Examiner indicated to Applicant's attorney that he would review the file and advise Applicant's attorney if a new Declaration would be required. It is submitted that the Declaration submitted on August 19, 2002 overcomes the defect in the original Oath.

Claims 1, 2, 4-12 and 15-20 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Bos, et al., U.S. Patent No. 6,313,454. Claim 1 has been amended to include the features previously recited in claim 8. Specifically, claim 1 recites that the optical moisture sensor includes a plurality of dark pixels and a plurality of standard pixels. The Examiner asserted in the previous Office Action and continues to assert that Bos, et al., discloses in Figure 7 dark pixels and normal pixels, reasoning that when light is turned off the pixels are dark and when light is turned on the pixels are normal. In response to this rejection in the previous Office

-6-

S.N. 09/750,653

Action, Applicant asserted that the dark pixels 26 are described on page 5, lines 4-8 of the specification as being functionally different from the standard pixels 22a and are shown as being structurally different than the pixels 22a in Figure 6. Therefore, the term "dark" is not used in the claim or in the application as defining the lighting conditions in which the pixel exists.

The words of a claim must be given their plain meaning, in other words, they must be read as they would be interpreted by one of ordinary skill in the art. M.P.E.P. § 2111.01. It is submitted that one of ordinary skill in the art would not define a pixel as dark or normal based on the lighting conditions surrounding the pixel. In none of the art cited by the Examiner does the art teach that a pixel is referred to as dark when it is positioned in a dark environment or referred to as normal when positioned in a lighted environment. Furthermore, the claim recites that the moisture sensor has a plurality of dark pixels and a plurality of standard pixels. Therefore, under the Examiner's own interpretation of the term "dark", the art does not teach an optical moisture sensor as recited in the claims of the present application since an optical moisture sensor is not taught as being simultaneously in a dark environment and a lighted environment.

In the most recent Office Action, the Examiner did not address the points raised by Applicant in support of the patentability of the claim. Specifically, the Examiner did not respond to the fact that the dark pixels 26 are described on page 5, lines 4-8 of the specification as being functionally different from the standard pixels 22a and are shown as being structurally different than the pixels 22a in Figure 6. Nor did the Examiner explain how, in view of the Examiner's own interpretation of dark and standard pixels, a photo array in lighted conditions could include dark pixels as well as standard pixels, or how a photo array in dark conditions could include standard pixels as well as dark pixels. It is, therefore, submitted that claim 1 patentably defines over the references and is in suitable condition for allowance. Claims 2 and 4-9 depend from claim 1 and are, therefore, also in suitable condition for allowance. Claim 11 and claim 17 also recite the optical moisture sensor having a plurality of dark pixels and a plurality of standard pixels and is, therefore, also in

suitable condition for allowance. Claims 12 and 15-16 depend from claim 11 and are, therefore, also in suitable condition for allowance. Claims 18-20 depend from claim 17 and are, therefore, also in suitable condition for allowance.

With respect to claim 10, it is submitted that Bos, et al., does not teach or suggest comparing the absolute ambient light value to a first predetermined value and to a second predetermined value. Claim 10 has been amended to be in independent form including all of the limitations of the base claim and any intervening claims. This amendment does not add new matter to the application or require further search or consideration by the Examiner. The Examiner has maintained the rejection of claim 10 over Bos, et al., from the previous Office Action. The Examiner asserts that the ambient light value is compared to first and second values in steps 230 and 330 of the process illustrated in Figure 7. In response to the previous Office Action, Applicant respectfully directed the Examiner's attention to the description of Figure 7 in the '454 patent. In particular, step 230 of the process illustrated in Figure 7 is to determine whether the sum of the "DN" is greater than a first threshold value. '454 patent, column 12, lines 19-25. The "DN" value is the sum of light values sensed by each pixel in the imaging array sensor. Column 10, lines 28-30. The ambient light value is determined by the ambient light logic function 54. Column 9, lines 66 through column 10, line 1. On the other hand, the comparison in step 330 is between the sum of the edges and a second threshold value. Column 12, lines 44-58. The '454 patent makes clear that the sum of the edges is not the ambient light value. Furthermore, the threshold values recited in steps 230 and 330 are different. Compare column 12, lines 24-25 with lines 57-58. The Examiner did not address these issues in the most recent Office Action. It is, therefore, submitted that claim 10 patentably defines over the references and is in suitable condition for allowance.

Claim 14 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Bohs, et al. This rejection has been maintained from the previous Office Action. The points raised by Applicant in support of the patentability of claim 14 were not addressed by the Examiner in the most recent Office Action.

Specifically, Applicant traversed the assertion by the Examiner that the number of times the comparison is carried out is a matter of design choice and requested that the Examiner cite a reference in support his position pursuant to M.P.E.P. § 2144.03. Bos, et al., provides a smoothing algorithm 35 to minimize the likelihood of erroneously detecting raindrops as described in the Abstract of the '454 patent. Claim 14 has been amended to be in independent form including the base claim and any intervening claim. It is, therefore, submitted that claim 14 patentably defines over the references and is in suitable condition for allowance.

Claims 3 and 13 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Bohs, et al. in view of Schofield et al., U.S. Pat. No. 6,097,023. It is submitted that Bos, et al., does not teach or suggest timer means for selectively disabling the processor means from comparing the value to the predetermined value for a predetermined period of time. Previously, the Examiner asserted that the A/D convertor 37 of Bohs, et al., inherently acts as a timer means for disabling the processor from comparing for a predetermined period of time. In the most recent Office Action, the Examiner acknowledged that Bohs, et al., does not specifically disclose timing means for selectively disabling the processor means as claimed. The Examiner asserts that Schofield, et al., U.S. Patent No. 6,097,023 teaches detecting light levels over a long period of time in order to produce significant time filtration as a new grounds of rejection.

It is submitted that neither Bos, et al., nor Schofield, et al., teach or suggest the invention as recited in claim 3. As previously stated and acknowledged by the Examiner, Bohs, et al., does not specifically teach disclosing means for selectively disabling the processor means as claimed. Schofield, et al., does not overcome this deficiency. The Examiner points to column 5, lines 19-21 of Schofield, et al. The Examiner asserts that Schofield, et al., recognizes that moisture and ambient light detection circuits which provide "a quick response" is not desirable. The section of Schofield, et al., cited by the Examiner does not teach timer means for selectively disabling the processor means from comparing the value to the predetermined value for a predetermined period of time. To establish prima facie

-9-

S.N. 09/750,653

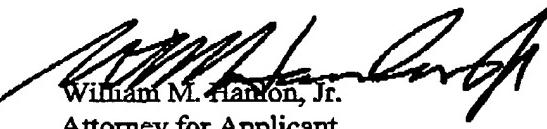
obvious of a claimed invention, all the claim limitations must be taught or suggested by the prior art. M.P.E.P. § 2143.03. The Examiner's characterization of Schofield, et al., is not a teaching found in the prior art. It is, therefore, submitted that claim 3 patentably defines over the references and is in suitable condition for allowance. Claim 13 also recites timer means for selectively disabling the processor means from comparing the value to the predetermined value for a predetermined period of time and is, therefore, also in suitable condition for allowance.

It is respectfully submitted that this Amendment traverses and overcomes all of the Examiner's objections and rejections to the application as originally filed. It is further submitted that this Amendment has antecedent basis in the application as originally filed, including the specification, claims and drawings, and that this Amendment does not add any new subject matter to the application. Reconsideration of the application as amended is requested. It is respectfully submitted that this Amendment places the application in suitable condition for allowance; notice of which is requested.

If the Examiner feels that prosecution of the present application can be expedited by way of an Examiner's amendment, the Examiner is invited to contact the Applicant's attorney at the telephone number listed below.

Respectfully submitted,

YOUNG, BASILE, HANLON, MacFARLANE,
WOOD & HELMHOLDT, P.C.



William M. Hanlon, Jr.
Attorney for Applicant
Registration No. 28,422
(248) 649-3333

3001 West Big Beaver Rd., Suite 624
Troy, Michigan 48084-3107
Date: December 20, 2002
WMH/RCM/rm

-10-

S.N. 09/750,653

VERSION WITH MARKINGS TO SHOW CHANGES MADEIn the claims:

1. (Amended) An optical moisture detector for measuring ambient light conditions comprising:

an optical moisture sensor having a plurality of dark pixels and a plurality of standard pixels for sensing the presence of moisture on a moisture collecting surface, the sensor operable to emit a signal corresponding to sensed conditions; and

processor means for receiving the signal, for determining an absolute ambient light value corresponding to existing ambient light conditions, for comparing the value to a predetermined value, and for emitting a control signal if the value is less than the predetermined value as a result of the comparison.

3. (Twice Amended) [The] An optical moisture detector [of claim 1 further] for measuring ambient light conditions comprising:

an optical moisture sensor for sensing the presence of moisture on a moisture collecting surface, the sensor operable to emit a signal corresponding to sensed conditions;

processor means for receiving the signal, for determining an absolute ambient light value corresponding to existing ambient light conditions, for comparing the value to a predetermined value, and for emitting a control signal if the value is less than the predetermined value as a result of the comparison; and

timer means for selectively disabling the processor means from comparing the value to the predetermined value for a predetermined period of time.

Cancel claim 8.

10. (Twice Amended) [The] An optical moisture detector [of claim 1] for measuring ambient light conditions comprising:

-11-

S.N. 09/750,653

an optical moisture sensor for sensing the presence of moisture on a moisture collecting surface, the sensor operable to emit a signal corresponding to sensed conditions:

processor means for receiving the signal, for determining an absolute ambient light value corresponding to existing ambient light conditions, for comparing the value to a predetermined value, and for emitting a control signal if the value is less than the predetermined value as a result of the comparison wherein the processing means compares the absolute ambient light value to a plurality of predetermined values such that the processing means compares the absolute ambient light value to a first predetermined value to determine if a signal to turn on a light generating device is to be sent, and compares the absolute ambient light value to a second predetermined value to determine if a signal to turn off the light generating device is to be sent.

11. (Amended) An optical moisture detector for measuring ambient light conditions comprising:

an optical moisture sensor having a plurality of dark pixels and a plurality of standard pixels for sensing the presence of moisture on a windshield of a vehicle, the sensor operable to emit a signal corresponding to sensed conditions; and

processor means for receiving the signal, for determining an absolute ambient light value corresponding to existing ambient light conditions, for comparing the value to a predetermined value, and for emitting a control signal if the value is less than the predetermined value as a result of the comparison.

13. (Twice Amended) [The] An optical moisture detector [of claim 11 further] for measuring ambient light conditions comprising:

an optical moisture sensor for sensing the presence of moisture on a windshield of a vehicle, the sensor operable to emit a signal corresponding to sensed conditions:

processor means for receiving the signal, for determining an absolute ambient light value corresponding to existing ambient light conditions, for comparing the value to a predetermined value, and for emitting a control signal if the value is less than the predetermined value as a result of the comparison; and

timer means for selectively disabling the processor means from comparing the value to the predetermined value for a predetermined period of time.

14. (Amended) [The] An optical moisture detector [of claim 11] for measuring ambient light conditions comprising:

an optical moisture sensor for sensing the presence of moisture on a windshield of a vehicle, the sensor operable to emit a signal corresponding to sensed conditions; and

processor means for receiving the signal, for determining an absolute ambient light value corresponding to existing ambient light conditions, for comparing the value to a predetermined value, and for emitting a control signal if the value is less than the predetermined value as a result of the comparison wherein the processor means emits the control signal only if at least two successive comparisons indicate the value is less than the predetermined value.

17. (Amended) A method of measuring ambient light conditions comprising:

sensing the presence of moisture on a moisture collecting surface with an optical moisture sensor having a plurality of dark pixels and a plurality of standard pixels, the sensor operable to emit a signal corresponding to sensed conditions;

receiving the signal and determining an absolute ambient light value corresponding to the existing ambient light conditions with processor means;

comparing the value to a predetermined value with the processor means; and

emitting a control signal with the processor means if the value is less than the predetermined value as a result of the comparing step.

PATENT

Our Reference: VWS-501-A

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: James A. Jackson, Jr.

Serial Number: 09/750,653

Filing Date: December 28, 2000

Examiner/Group Art Unit: Luu, Thanh X./2878

Title: AMBIENT LIGHT DETECTOR FOR OFF-THE-GLASS RAIN SENSOR

SUBMISSION OF SUBSTITUTE DRAWING

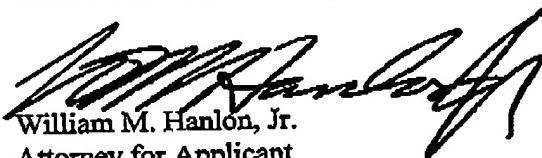
BOX AF

Assistant Commissioner of Patents
Washington, D.C. 20231

Sir:

Responsive to the Office Action dated October 25, 2002, and in connection with the above-identified application, enclosed herewith is one (1) sheet of substitute drawing.

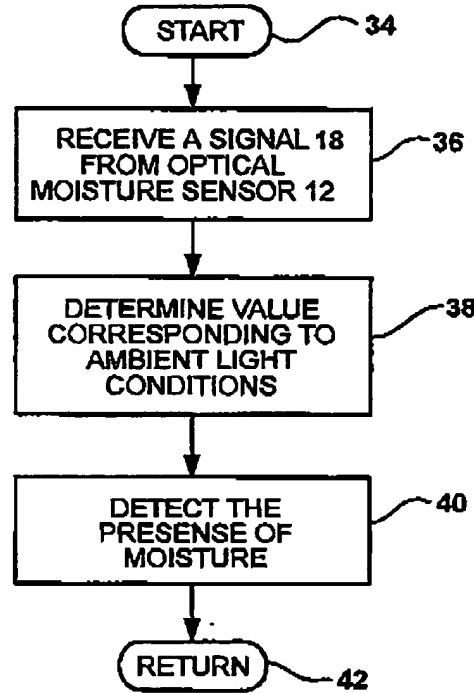
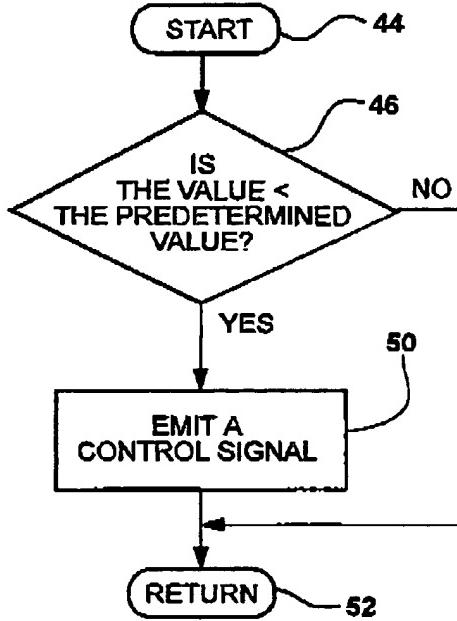
Respectfully submitted,

YOUNG, BASILE, HANLON, MacFARLANE,
WOOD & HELMHOLDT, P.C.
William M. Hanlon, Jr.
Attorney for Applicant
Registration No. 28,422
(248) 649-33333001 West Big Beaver Rd., Suite 624
Troy, Michigan 48084-3107
Date: December 20, 2002
WMH/RCM/mn

FAX RECEIVED

DEC 20 2002

TECHNOLOGY CENTER 2800

FIG - 3**FIG - 4**

**Law Offices of
YOUNG & BASILE, P.C.
Patents, Trademarks and Copyrights**

3001 W. Big Beaver Road
Suite 624
Troy, Michigan 48084
Telephone: (248) 649-3333
Facsimile No.: (248) 649-3338

2001 Commonwealth Boulevard
Suite 301
Ann Arbor, Michigan 42485
Telephone: (734) 662-0270
Facsimile No. (734) 662-1014

FACSIMILE TRANSMISSION

DATE: December 20, 2002

OUR REFERENCE: VWS-501-A **FAX RECEIVED**

SERIAL NO.: 09/750,653 **DEC 20 2002**

TO: Patent Examiner Thanh X. Luu TECHNOLOGY CENTER 2800
United States Patent and Trademark Office

FACSIMILE NO.: (703) 872-9319

FROM: William M. Hanlon, Jr.

PAGES TO FOLLOW: - 15 -

MESSAGE: URGENT After Final Amendment, Submission of
Substitute Drawing; and one (1) sheet of substitute
drawings are included herewith.

THE INFORMATION CONTAINED IN THIS FACSIMILE IS ATTORNEY PRIVILEGED AND/OR
CONFIDENTIAL AND IS INTENDED ONLY FOR THE NAMED RECIPIENT. If you have received this
communication in error, please notify us immediately. You are hereby notified that any dissemination,
distribution or copying of this information is strictly prohibited. Thank you.

This message was transmitted by JILL in
the Troy office. If transmission
difficulties occur, please contact sender
at (248) 649-3333. Please respond to:
FACSIMILE NO. (248) 649-3338

- () Please call to confirm receipt
(X) Original will not follow
() Original will follow by:
____ Regular Mail
____ Express Mail
____ Federal Express
____ Other _____

Our Reference: VWS-501-A

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: James A. Jackson, Jr.
Serial Number: 09/750,653
Filing Date: December 28, 2000
Examiner/Group Art Unit: Luu, Thanh X./2878
Title: AMBIENT LIGHT DETECTOR FOR OFF-THE-GLASS RAIN SENSOR

FAX RECEIVED

CERTIFICATE OF FACSIMILE TRANSMISSION

BOX AF
Assistant Commissioner of Patents
Washington, D.C. 20231

DEC 20 2002

TECHNOLOGY CENTER 2800

Sir:

Transmitted with this document is an Amendment Under 37 C.F.R. § 1.116; a Submission of Substitute Drawing; and one (1) sheet of drawings in the above-identified application.

X

Please charge \$336.00 for four (4) excess independent claims as well as any deficiency in the authorized fees and credit any excess to Deposit Account Number 25-0115.

I hereby certify that this correspondence is being faxed to Examiner Luu at (703) 872-9319, on December 20, 2002.

Respectfully submitted,

YOUNG, BASILE, HANLON, MacFARLANE,
WOOD & HELMHOLDT, P.C.



William M. Hanlon, Jr.
Attorney for Applicant
Registration No. 28,422
(248) 649-3333

3001 West Big Beaver Rd., Suite 624
Troy, Michigan 48084-3107
Date: December 20, 2002
WMH/RCM/mn